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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,049	11/15/2000	Stepan B. Sokolov	5181-60100	4379

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Robert C. Kowert
Conley Rose & Tayon PC
PO Box 398
Austin, TX 78767-0398

EXAMINER

GROSS, KENNETH A

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 01/29/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/714,049

Applicant(s)

SOKOLOV, STEPAN B.

Examiner

Kenneth A Gross

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the amendment filed on October 17th, 2003.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claim 11 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 11 of copending Application No.

09/714,050. For the specific rejection of Claim 11, see the office action mailed on July 14th, 2003.

Specification

4. The use of the trademarks "JAVA" and "JAVASCRIPT" have been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

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5. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11-12, 14, 18-20, 23-27, 29-33, 34-36, 40-44, 46-49, 50-52, 54-56, 58-59, 61-63, 65, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent Number 6,292,936) in view of Hillson et al. (U.S. Patent Number 6,094,644).

In regard to Claim 11, Wang teaches: (1) a first process detecting one or more script language instructions in a markup language document (Column 4, lines 43-47); (b) generating an intermediate representation of the one or more script language instructions, wherein the intermediate programming language representation of the one or more script language instructions is different from the script language (Column 4, lines 48-58). Wang teaches converting VisualBasic Script instructions into a Java thread object, which is not the script language instructions (Figure 2, item 116 and item 200); (c) interpreting and executing each of the intermediate representation instructions by using program objects to implement the

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instructions (Column 4, lines 48-58); (d) wherein said interpreting and executing produces results in accordance with the original one or more script language instructions. The interpreter inherently converts the script into an equivalent intermediate form (Column 1, lines 19-21).

Wang does not teach that the first process is implemented in a platform-independent programming language. Hillson, however, does teach a web browser implemented in a virtual machine (Figure 5, item 168). A web browser inherently parses a markup language, and typically handles script language instructions. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform a method including a first process detecting one or more script language instructions in a markup language document, generating an intermediate representation of the one or more script language instructions, interpreting and executing each of the intermediate representation instructions by using program objects to implement the instructions wherein said interpreting and executing produces results in accordance with the original one or more script language instructions, as taught by Wang, where the first process is implemented in a platform-independent programming language, as taught by Hillson, since this allows an markup language parser, such as a web browser, to be platform independent, and hence much more portable.

Claims 27, 34, 50-52, and 62 contain limitations that have already been addressed in the rejection of Claim 11 and are rejected for the same reasons as Claim 11.

In regard to Claim 56, Wang teaches a device with a Java Virtual Machine, an interpreter engine, a Web browser (Figure 1, items 110, 112, and 104), and an HTML parser that detects scripts in the HTML document, and provides the scripts to the interpreter engine where the scripts are executed (Column 4, lines 48-63). Wang does not teach that the Web browser is

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executed within a Java Virtual Machine. Hillson, however, does teach a web browser implemented in a virtual machine (Figure 5, item 168). A web browser inherently parses a markup language, and typically handles script language instructions. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to build a system, including a device with a Java Virtual Machine, an interpreter engine, a Web browser, and an HTML parser that detects scripts in the HTML document, and provides the scripts to the interpreter engine where the scripts are executed, as taught by Wang, where the Web browser is executed within a Java Virtual Machine, as taught by Hillson, since this allows for a platform-independent, and hence portable, web browser.

For specific logic regarding the rejections of limitations of Claims 12, 14, 18-20, 23-26, 29-33, 35-36, 40-44, 44-49, 54-55, 58-59, 61, 63, 65, and 67, see the office action mailed on July 14th, 2003.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent Number 6,292,936) in view of Hillson et al. (U.S. Patent Number 6,094,644) and further in view of "The Principles of Computer Hardware, Third Edition" by Alan Clements, 2000 (hereinafter Clements).

In regard to Claim 13, Wang and Hillson teach the method of Claim 11, but do not teach where the instructions are stored on a stack, and the instructions are popped from the stack during the interpreting and executing steps. Clement, however, does teach using the stack data structure to hold instructions that are executed by popping the instruction off of the stack. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the detecting, generating, interpreting, executing, and accessing steps of

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Claim 11, as taught by Wang and Hillson, where the instructions are stored on a stack, and the instructions are popped from the stack during the interpreting and executing steps, as taught by Clements, since this is an intuitive way to parse instructions in a computer system.

9. Claims 15-17, 37-39, 57, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent Number 6,292,936) in view of Hillson et al. (U.S. Patent Number 6,094,644) and further in view of "Load-Time Structural Reflection in Java" by Shigeru Chiba, June 2000 (hereinafter Chiba).

In regard to Claim 15, Wang and Hillson teach the method of Claim 11, but do not teach the generating of intermediate language step includes modifying at least one of the programming objects. Chiba, however, does teach using the Java Reflection API to alter class definitions, and hence altering the objects that are created by the class during the translating of the script language (Page 7, lines 17-20). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the detecting, generating, interpreting, executing, and accessing steps of Claim 11, as taught by Wang and Hillson, where the generating step includes modifying at least one of the programming objects, as taught by Chiba, since this allows for efficient dynamic alteration of Java classes.

Claims 37, 57, and 64 contain limitations that have already been addressed in the rejection of Claim 15 and are rejected for the same reasons as Claim 15.

For logic behind the rejections of the limitations of Claims 16, 17, 38, and 39, see the office action mailed on 7/14/2003.

10. Claim 21, 22, 45, 53, 60, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (U.S. Patent Number 6,292,936) in view of Hillson et al. (U.S. Patent

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Number 6,094,644) and further in view of "The IR to VMx86 Translation Module Specification" by Chris Lattner, December 1999 (hereinafter Lattner).

In regard to Claim 21, Wang and Hillson teaches the method of Claim 11, but does not teach each of the instructions in the intermediate representation is represented as one or more Java objects. Lattner, however, does teach an Instruction Java class that creates instruction objects (Page 2). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the detecting, generating, interpreting, executing, and accessing steps of Claim 11, as taught by Wang and Hillson, where each of the instructions in the intermediate representation is represented as one or more Java objects, as taught by Lattner, since this allows for the encapsulation, and thus the easy access and modification of a program of instructions.

Claims 45, 53, 60, and 66 contain limitations that have already been addressed in the rejection of Claim 21 and are rejected for the same reasons as Claim 21.

For logic behind the rejections of the limitations of Claim 22, see the office action mailed on July 14th, 2003.

Response to Arguments

With regard to the double patenting rejection, the rejection is maintained. Furthermore, the applicant is silent as to how the application overcomes the provisional rejection.

Applicant claims on Page 15, line 4 that Claim 56 has been amended, however, no amendment is found on Claim 56. Claim 56 is described as being "Previously Presented" on Page 11 of the amendment.

Specifically, the applicant argues that there is no language in Wang that teaches or suggests, “generating a intermediate programming language representation of the one or more script language instructions, wherein the platform-independent programming language representation of the one or more script language instructions is different from the script language” (Page 16, lines 5-15). Furthermore the script instructions of the intermediate source used by the VisualBasic Script interpreter are still in the original VisualBasic Script Language, and that Wang only teaches separating the VisualBasic Script from the HTML file and adding tokens. This is indeed the process for creating intermediate source 202 (Column 3, lines 44-49). However, intermediate source 200 is in fact converted from a VisualBasic Script source into a Java object thread, which is not a VisualBasic Script (Figure 2, item 200 and Column 4, lines 48-58).

Applicant’s arguments regarding the platform-independent process of Claim 11, as described in Page 16, lines 18-24 is hereby moot, in view of the new grounds of rejection presented in this office action.

In regard to Claim 26, the applicant argues that the examiner stated that claim 26 corresponds to Claim 11, and thus rejected for the same reasons as Claim 11 (Page 17, lines 8-11), the examiner never grouped Claim 26 with Claim 11. Claim 26 has an independent rejection and is filed in the office action mailed on 7/14/2003. Claim 27 corresponds with Claim 11. Note, that the term corresponds should imply that Claim 27 contains limitations that have already been addressed in the rejection of Claim 11, and the limitations of Claim 27 are rejected for the same reasons.

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In regard to Claim 26 and 48, the applicant argues that the functionality in Wang referred to by the examiner is a server, and not a Web browser stated in Claims 26 and 48. However, the HTML parser can be seen as a Web browser (Figure 1, item 114), in that it parses and interprets HTML code, and handles script instructions.

Applicant's arguments regarding the Web browser executable within the Java Virtual Machine of Claim 56, as described in Page 17, lines 24-29 is hereby moot, in view of the new grounds of rejection presented in this office action.

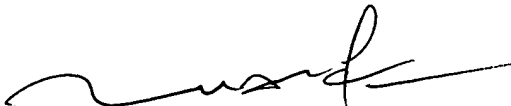
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Gross whose telephone number is (703) 305-0542. The examiner can normally be reached on Mon-Fri 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

KAG


TUAN DAM
SUPERVISORY PATENT EXAMINER